

ARZAMASOV, B.N.

AID Nr. 974-14 22 May

DIFFUSION COATINGS AND REFRACTORY COATINGS (USSR)

**Metallovedeniye i termicheskaya obrabotka metallov, no. 3, Mar 1963, 59-61.
S/129/63/000/003/009/009**

The Second Seminar on Diffusion Coatings of Metals and Refractory Compound Coatings on Metallic and Nonmetallic Materials was held 10-12 October 1962 in Odessa. B. N. Arzamasov (Moscow Higher Technical School imeni Bauman) reported on Si-coatings on Mo, W, and Ta and Al-coatings on Mo and W produced by a circulation method in which Si and Al chlorides and gaseous HCl are circulated, i.e., reused. This method improves the quality of coatings and the efficiency and economy of the process. G. N. Dubinin (Moscow Aviation Institute) spoke on the electrical and magnetic properties of "10" and "410" steels diffusion coated with Cr, Mo, W, Si, and Ti, and of copper and aluminum diffusion coated with Ti, Cr, Si, and B. A. P. Epik discussed C and B diffusion coatings on Ti, Zr, Nb, and Ta, the kinetics of formation of carbide

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DIFFUSION COATINGS [Cont'd]

S/129/63/000/003/009/009

and boride layers, the structure and phase composition of these layers, and some properties for different conditions of coating. V. I. Arkharov spoke on the crystallography of phase transformations and reactions. N. V. Titov (Odessa Marine Academy) suggested a method for the approximate calculation of the deformation of a metal during its impregnation with other metals. N. F. Lashko discussed Si diffusion coatings on Nb and Nb-alloys. M. I. Simonova reported on cation distribution in oxides with spinel structure, which are formed on some alloy steels. These data are of great importance for the investigation of diffusion in oxide systems. [DV]

Card 2/2

PROKOSHIN, D.A.; ARZAMASOV, B.N.; Primal uchastiye V.A. Prostrem

Investigating the system chromium - tungsten by the thermal diffusion
method. Issl. po zharoproch. splav. 10:225-228 '63. (MIRA 17:2)

ACCESSION NR: AT4013956

8/2659/63/010/000/0225/0228

AUTHOR: Prokoshkin, D. A.; Arzamasov, B. N.

TITLE: Investigation of chromium-tungsten alloys by the thermal diffusion method

SOURCE: AN SSSR. Institut metallurgii. Issledovaniya po zharoprochny'm splavam, v. 10, 1963, 225-228.

TOPIC TAGS: chromium, tungsten, chromium tungsten alloy, constitutional diagram, thermal-diffusion process

ABSTRACT: There are differences of opinion about many high-temperature metal systems. In particular, there are contradictory data on chromium-tungsten alloys. The authors together with V. A. Brostren, who participated in the experimental part of the work, used the thermal diffusion method for specifying the constitutional diagram of this alloy. The diagram allows one to determine the different phases of the system during diffusive saturation under isothermic conditions. The author shows that W. Trzebiatowski, M. Ploszek,

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and J. Lobzowski (X-ray analysis of chromium-molybdenum and chromium-tungsten alloys. Anal. Chem., 19, 2, 1941) did not determine one of the phases of chromium-plated tungsten, as the X-ray analysis was performed on deformed powders of the Cr-W alloy. On the basis of tests with the Cr-W alloy it was possible to assume that annealing of Cr-W alloy powders prior to X-ray analysis allows one to detect the CrW_3 phase, which the authors found by using the thermal diffusion method. Orig. art. has: 4 figures.

ASSOCIATION: Institut metallurgii AN SSSR (Institute of Metallurgy AN SSSR)

SUBMITTED: 00

DATE ACQ: 27Feb64

ENCL: 00

SUB CODE: MM

NO REF SOV: 003

OTHER: 001

Cord 2/2

L 5456-66 EWT(1)/EPA(s)-2/EWT(m)/EWP(w)/EWP(1)/EFF(n)-2/EPA(w)-2/T/EWP(t)/
EWP(h)/EWA(m)-2/EWA(c) LJP(s) JD/JG/95
ACC NR. AT5024870 SOURCE CODE: UR/0000/65/000/000/0038/0044

AUTHOR: Prokoshkin, D. A. Arzamasov, B. N.; Ryabchenko, Ye. V.

ORG: Institute of Problems of Material Science, AN UkrSSR (Institut problem materialovedeniya AN UkrSSR)

TITLE: Siliconizing refractory metals in a glow discharge

SOURCE: AN UkrSSR. Institut problem materialovedeniya. Diffuzionnyye pokrytiya na metallakh (Diffusion coatings on metals). Kiev, Naukova, dumka, 1965, 38-44

TOPIC TAGS: refractory metal, metal siliconizing, glow discharge siliconizing, molybdenum siliconizing, tungsten siliconizing, niobium siliconizing, tantalum siliconizing

ABSTRACT: Molybdenum, tungsten, niobium, and tantalum have been siliconized at 1000 to 1200C by glow discharge in a mixture of silicon tetrachloride vapor and hydrogen flowing at a pressure of 40 mm Hg and a rate of 0.5 l/min. The glow discharge starts at 500—700 v. The rate of siliconizing in a glow discharge depended on the pressure in the reaction chamber, the volume ratio and the rate of consumption of the silicon tetrachloride and hydrogen, and the reaction temperature and was significantly higher than that of conventional siliconizing in a gaseous medium. Molybdenum had a siliconized layer 25 μ thick in 5 min, and a layer 67 μ thick in 40 min. Higher rates were also observed in tungsten, niobium, and tantalum. The siliconized coatings consisted basically of disilicides of the respective metals. Tungsten siliconized at

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1000C for 30 min had a one-layer coating consisting of WSi_2 with a hardness of 1865 dan/mm². Niobium and tantalum had two-layer coatings, the outer layers consisting of $NbSi_2$ and $TaSi_2$, respectively, and the inner layer having a lower silicon content. The inner layer of niobium had a hardness of 1125 dan/mm². Molybdenum siliconized at 1000C for 40 min had a three-layer coating; the hardness of the outer and innermost layers was 1565 and 1350 dan/mm², respectively. Molybdenum and tungsten disilicides had a tetragonal crystal lattice; niobium and tantalum had a hexagonal lattice. Siliconizing in a glow discharge can be done below the recrystallization temperature, which keeps the parts in the strengthened condition. The high efficiency of the process can be explained by the presence of an ionized medium and by the activated condition of the metal surface being siliconized. Orig. art. has: 4 figures. [MS]

SUB CODE: MM,EM/ SUBM DATE: 06Aug65/ ORIG REF: 004/ OTH REF: 004/ ATD PRESS: 4133

Card 212 *had*

L 08421-67 EWT(m)/EWP(k)/EWP(t)/ETI LJP(c) ID/10/48/3D
ACC NR: AT6034465 (A) SOURCE CODE: UR/0000/66/000/000/0276/0280

AUTHOR: Prokoshkin, D. A.; Arzamasov, B. N.; Ryabchenko, Ye. V.

ORG: none

TITLE: Investigation of molybdenum siliconizing in a glow discharge

SOURCE: AN SSSR. Institut metallurgii. Svoystva i primeneniye zharoprochnykh splavov (Properties and application of heat resistant alloys). Moscow, Izd-vo Nauka, 1966, 276-280

TOPIC TAGS: molybdenum, silicon, ~~impregnation~~, ~~molybdenum-silicon coating~~, ~~coating composition~~, ~~glow discharge heating~~, ~~molybdenum-silicon coating~~, ~~coating composition~~, ~~oxidation resistance~~, ~~metal surface impregnation~~, ~~metal~~

ABSTRACT: The schematic and operation of a unit for siliconizing metals with glow-discharge heating are described. The experiments were made on pure molybdenum wire, 0.3 mm in diameter, in a mixture of silicon tetrachloride vapor and dry commercial-grade hydrogen. The design of the unit also permitted electric resistance heating of the wire. The partial pressure of silicon tetrachloride vapor and hydrogen was 30 and 10 mm Hg respectively. The temperature of siliconizing with glow-discharge heating was 1100C and with resistance heating--1300C. In both cases, heating the wire to the siliconizing temperature lasted 0.5 min, the holding

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ACC NR: AT6034465

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time at this temperature was 5 min, and the time of cooling to 200C was about 1 min. Regardless of the method of heating, no molybdenum siliconizing was observed in the absence of hydrogen in the ambient medium, but a silicide coating was readily formed on the wire surface when a mixture of silicon tetrachloride vapor and hydrogen was used. The weight and size of the test specimens also increased. The silicide coating consisted of an outer MoSi_2 phase, an inner Mo_5Si_3 phase, and a thin layer, probably of the Mo_5Si_3 phase, between them. In siliconizing with glow-discharge heating, the silicon impregnation proceeded much more rapidly than with other methods, particularly at lower temperatures. Thus, siliconizing at 800C with glow-discharge heating and at 1200C with resistance heating produced silicide coatings of the same thickness. Regardless of the method of heating, the reaction products were the same as was also the oxidation resistance of the formed coatings, continuously or cyclically heated in air at 1500C. The maximum number of heating cycles sustained by coatings 40- μ thick was 330. Tungsten, niobium, tantalum and a number of other metals were also successfully siliconized with glow-discharge heating. Orig. art. has: 3 figures.

SUB CODE: 11/
13/ SUBM DATE: 10Jun66/ OTH REF: 002/ ATDPPRESS: 5103

Card 2/2 1s

ACC NR: AP7005233

(A)

SOURCE CODE: UR/0145/66/000/009/0116/0119

AUTHOR: Arzamasov, B. N. (Candidate of technical sciences, Lecturer)

ORG: None

TITLE: Thermodynamic analysis of the circulation method for producing coatings

SOURCE: IVUZ. Mashinostroyeniye, no. 9, 1966, 116-119

TOPIC TAGS: thermodynamic analysis, metal coating, thermal diffusion, halide, metal diffusion plating

ABSTRACT: The author discusses a new circulation method for producing thermal diffusion coatings from a gaseous medium. The method is based on mass transfer in a closed gas line with systematic regeneration of the gas-carrier and circulation by a blower. This mass transfer is based on reactions which take place at different temperatures: $EX_n + E + EX_m$ at T_1 and $EX_m \rightarrow E + EX_n$ at T_2 where $n > m$, X are halogens (excepting astatine), E are the coating elements. A high-temperature chamber is filled with the element to be used for the coating and the parts to be treated are placed in a low-temperature chamber. The circulation unit is then filled with the higher-valence halogenide of the given element and heated to predetermined temperatures. The coating element is precipitated and absorbed by the metal to be coated. The thermodynamic and chemical characteristics of the process are discussed using examples based on aluminum and silicon coatings of refractory metals in various gaseous media. The thermodynamic cri-

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UDC: 621.793

ACC NR: AP7005233

terion for use of the given method is the possibility for reactions of formation and disproportionation of lower-valence halogenides. This indicates the theoretical possibility of using this method for producing boron, beryllium, titanium and vanadium coatings in addition to aluminum and silicon. The article was presented for publication by Doctor of technical sciences D. A. Prokoshkin, Professor at the Moscow Technical College im. N. E. Bauman. Orig. art. has: 5 figures, 10 formulas.

SUB CODE: 11/ SUBM DATE: 21Apr66/ ORIG REF: 04

Card 2/2

ARZAMASOV, I.T.

New species of ixodid ticks in White Russia. Izv. AN BSSR no.6:169
N-D '55. (MIRA 9:6)

(White Russia--Ticks)

USSR/Zooparasitology. Ticks and Insects - Vectors of G
Causal Organisms. Ticks.

Abs Jour: Ref. Zhur. - Biol., No 23, 1958, 104095

Author : Arzamasov, I. T.

Inst : Institute of Biology of the Academy of Sciences
BSSR

Title : The Host Cycle of Ixodial Ticks.

Orig. Pub : Byul. In-ta biol. AN BSSR, No 2, 1956 (1957), 253-258

Abstract: In the Beloveshskaya Pushcha National Forest and
in a number of regions of Belorussia 3044 animals
belonging to 79 species, 7 holes and 44 nests of
birds and squirrels were examined for ixodial
tick infectivity. Thereby, 23,774 specimens of
ixodial ticks of 5 species were collected -
Ixodes ricinus, I. crenulatus, I. trianguliceps,
I. apronophorus, Dermacentor pictus. Each of
the developmental phases of a certain species
of tick has its principal and secondary hosts

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.USSR/Zooparasitology. Ticks and Insects - Vectors of G
Causal Organisms. Ticks.

Abs Jour: Ref. Zhur. - Biol., No 23, 1958, 104095

(the author makes the division into these groups on the basis of the indices of numbers of ticks per animal without taking into consideration the census of the hosts themselves). I. ricinus and I. trianguliceps parasitize chiefly animals which inhabit forest and brushwood areas, while D. pictus is most often encountered on animals living in open areas. Wild vertebrates which are associated with human villages and cultivated fields are not infected by ticks. The same may be said of birds and bats, which are not associated with grass in their activity. - L. V. Babenko

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ARZAMASOV, I. T., Cand Biol Sci -- (diss) "Ixodian ticks of *the*
BSSR." Minsk, 1957. 18 pp (Acad Sci Belorussian SSR, Inst
of Biology), 100 copies (KL, 1-58, 116)

- 30 -

USSR/Zooparasitology - Mites and Insects as Disease Vectors.

G-3

Abs Jour : Ref Zhur - Biol., No 10, 1958, 43428

Author : Arzamasov, I.T.

Inst :

Title : The Species Composition and Prevalence of Ixodic Ticks in Byelorussia.

Orig Pub : Vestsi AN BSSR, Ser. biyal. n.; Izv. AN BSSR, ser. biol. n., 1957, No 1, 99-111.

Abstract : For the first time in Byelorussia there were found Ixodes apronophorus Sch., I. crenulatus Koch, I. trianguliceps Bir.; new data are given on local distribution and the circle of hosts of I. ricinus, Dermacentor marginatus, D. pictus.

Card 1/1

- 10 -

ARZAMASOV, I.T.

Relation between the decrease of the number of murine rodents and the
intensity of their infestation by the larvae of *Ixodes ricinus* L.
Biol. Inst. biol. AN BSSR no.2:250-252 '57. (MIRA 11:2)
(Byalovezhska Pushcha--Ticks) (Parasites--Mice)

ARIAMASOV, I.T.

Host cycle of ixodid ticks. Bul. Inst. biol. AN BSSR no.2:253-258
'57. (MIRA 11:2)

(White Russia--Ticks)

ARZAMASOV, I.T.

Development of the preimaginal phases of *Ixodes ricinus* L.
and *Dermacentor pictus* Nerm. Biul.Inst.biol.AN BSSR no.3:
254-258 '58.

(TICKS)

(MIRA 13:7)

ARZAMASOV, I. T.

"Fauna of Ixodes Ticks in ^BSSR."

Tenth Conference on Parasitological Problems and Diseases with Natural Reservoirs, 22-29 October 1959, Vol. II, Publishing House of Academy of Sciences, USSR, Moscow-Leningrad, 1959.

Institute of Biology, AS, ^BSSR, Minsk

ARZAMASOV, I.T.; SERZHANIN, I.N., prof., red.; ZAYTSEVA, T., red.izd-va;
SHIROKOVA, G., tekhn.red.

[Ixodidae] Iksodovye kleshchi. Izd-vo Akad.nauk BSSR, 1961.
131 p. (MIRA 14:3)
(Ticks)

ARZAMASOV, I.T.; KURSKOV, A.N.

Extoparasites of bats in White Russia. Dokl. AN BSSR 6 no.3:202-
203 Mr '62. (MIRA 15:3)

1. Otdel zoologii i parazitologii AN BSSR. Predstavleno akademikom
AN BSSR Kh.S. Goreglyadom.
(White Russia--Insects, Injurious and beneficial)
(Parasites--Bats)

ARZAMASOV, I.T. [Arzamasau, I.T.]

Gamesid mites of rodents in the Byalovezhska Pushcha. Vestsi
AN BSSR.Ser.bial.nav. no.3:124-132 '62. (MIRA 15:12)
(BYALOVEZHSKA PUSHCHA--PARASITES--RODENTIA)
(BYALOVEZHSKA PUSHCHA--MITES)

SERZHANIN, I.N., otv. red.; ANZAMASOV, I.T., red.; DOLBIK, M.S.,
red.; MERZHEYEVSKAYA, O.I., red.; NIKITENKO, M.F., red.

[Abstracts of reports of the Second Zoological Conference of the White Russian S.S.R.] Tezisy dokladov Zoologicheskoi konferentsii Belorusskoi SSR. Minsk, Izd-vo AN BSSR, 1962. 315 p. (MIRA 18:1)

1. Zoologicheskaya konferentsiya Belorusskoy SSR. 2d, Minsk, 1962. 2. Otdel zoologii i parazitologii AN BSSR, gorod Minsk (for Nikitenko).

CHIKILEVSKAYA, I.V. [Chykileuskaya, I.V.]; ARZAMASOV, I.T. [Arzamasov, I.T.]

Distribution of gamasid mites in the burrows of rodents of
White Russian Polesye. Vestsi AN BSSR, Ser. biial. nav. no.3:
116-120 *63 (MIRA 17:7)

ARZAMASOV, I.T.

Ectoparasites of the water vole (*Arvicola terrestris* L.) and the muskrat (*Ondatra zibethica* L.) in White Russia. Dokl. AN BSSR 7 no.1:66-68 Ja '63.
(MIRA 17:1)

1. Otdel zoologii i parazitologii AN BSSR. Predstavleno akademikom AN BSSR V.A. Leonovym.

ARZAMASOV, I.T.

Ectoparasites of the common shrew *Sorex araneus* Schreb. in
White Russia. Dokl. AN BSSR 9 no.3:211-212 Apr '65.

(MIRA 18:6)

1. Otdel zoologii i parazitologii AN BSSR.

AFZAMASOV, I.T.

Ectoparasites of the hedgehog (*Erinaceus europaeus* L.) and
pygmy shrew (*Sorex minutus* L.) in White Russia. Vestsi
AN BSSR. Ser. biol. nav. no. 2:119-120 '65.

(MIRA 18:12)

ARZAMASOV, I.T.

Ectoparasites of the common mole (*Talpa europaea* L.) in
White Russia. Dokl. AN BSSR 9 no. 11:777-779 K '65
(MIRA 19:1)

1. Otdel. zoologii i parazitologii AN BSSR.

ACC NR: AP7001154 (A,N) SOURCE CODE: UR/0439/66/045/006/0830/0835

AUTHOR: Arzamasov, I. T.; Merkusheva, I. V.; Petrovskiy, Yu. T.;
Dyl'ko, N. I.

ORG: Division of Zoology and Parasitology, Academy of Sciences, Belorussian SSR, Minsk (Otdel zoologii i parazitologii Akademii nauk Belorusskoy SSR)

TITLE: Parasites of squirrels in Belorussia

SOURCE: Zoologicheskii zhurnal, v. 45, no. 6, 1966, 830-835

TOPIC TAGS: ~~zoology~~, parasitology, ^{ANIMAL} parasite, arthropod, helminth, protozoa, rickettsia

ABSTRACT: Data on parasites of the grey squirrel were collected in the Belorussian SSR between 1963 and 1964. The specificity, distribution, and dependence of 46 parasite species on the living conditions of the host were analyzed. In all, 39 arthropod, 3 helminth, 3 protozoan, and 1 rickettsial species were found in arboreal squirrels, while in ground squirrels and burrowing squirrels 14 arthropod, 6 helminth, 1 rickettsial, and 1 microbial parasite species were found. [LP]

SUB CODE: 06/ SUBM DATE: none/ ORIG REF: 016/ [WA-50; CBE No. 14] OTH REF: 002

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UDC: 591.69-932.22(476)

Handwritten: 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

KOGAN, Kipel' Borisovich; TAMARIN, Iosif Isayevich; ~~ARZAMASOV, N.A.~~
otvetstvennyy redaktor; MADEINSKAYA, A.A., tekhnicheskiy redaktor

[BV and BVu boring machines; a brief description of their
construction and results of industrial testing] Burovye stanki
BV i BVu; kratkoe opisanie konstruktsii i rezul'tatov promyshlen-
nykh ispytaniy. Moskva, Ugletekhnizdat, 1957. 30 p. (MLRA 10:7)
(Boring machinery)

Arzamov, N. A.

AL'SHITS, Yakov Issakovich, dots.; KOSTYUKOVICH, Fedor Vasil'yevich;
ARZAMOV, N.A., otvetstvennyy red.; BEKKER, O.G., tekhn.red.;
ALADOVA, Ye.I., tekhn.red.

[Apparatus and methods used in research on machines for excavating
coal] Apparatura i metody issledovaniia mashin dlia vyemki uglia.
Moskva, Ugletekhizdat, 1957. 95 p. (MIRA 11:2)

1. Donetskiiy industrial'nyy institut (for Al'shits)
(Coal mining machinery)

SHMAROV, Nikolay Aleksandrovich; TSETNARSKIY, I.A., otvetstvennyy redaktor;
ARZAMASOV, N.A., redaktor izdatel'stva; KOROVENKOVA, Z.A., tekhnicheskoy redaktor;
PROZOROVSKAYA, V.L., tekhnicheskoy redaktor

[Mechanization of mining] Mekhanizatsiya gornyykh rabot. Moskva,
Ugletekhizdat, 1957. 341 p. (MLRA 10:8)
(Coal mining machinery)

POL. Osval'd [Pohl, Osvald]; ARZAMASOV, N.A., gornyy inzh. [translator];
NURMUKHAMEDOVA, V.P., red.izd-vs; SHKLYAR, S.Ya., tekhn.red.

[Central control in coal mines] Dispetcherskaya sluzhba na ugol'-
nykh shakhtakh. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gor-
nomu delu, 1959. 166 p. Translated from the Czech. (MIRA 13:3)
(Coal mines and mining)

GARBUZ, David L'vovich; ARZAMASOV, N.A., otv. red.; PROZOROVSKAYA,
V.L., tekhn. red.

[Mine pneumatic apparatus] Rudnichnye pnevmaticheskie ustanovki.
Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1961.
359 p. (MIRA 15:2)

(Mining machinery--Pneumatic driving)

OSETSKIY, Vsevolod Mikhaylovich; ARZAMASOV, N.A., otv. red.; BOLDYREVA,
Z.A., tekhn. red.

[Engineering mechanics; general mechanics and mechanical
engineering] Tekhnicheskaya mekhanika; mekhanika obshchaya i
mekhanika mashin. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry
po gornomu delu, 1962. 471 p. (MIRA 15:4)
(Mechanics) (Mechanical engineering)

L 10000-67 EEE(m)/WWW(t)/FTT TJP(c) JE/JD/WW
ACC NR: AP6035959 (A) SOURCE CODE: UR/0129/66/000/010/0067/0069

AUTHOR: Prokoshkin, D. A.; Arzamasov, V. N.; Fedoseyeva, S. N.

ORG: MVTU im. Bauman

TITLE: Calorizing of nickel by the circulation method

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 10, 1966, 67-69

TOPIC TAGS: nickel, nickel calorizing, ^{metal}diffusion ~~layer composition, surface treatment~~,
oxidation resistance *inhibition*

ABSTRACT: Specimens of electrolytic nickel were calorized in a gaseous medium continuously circulating in a closed two-reaction chamber apparatus at a pressure slightly higher than atmospheric. The gaseous medium was obtained from 99.996% pure aluminum and dry hydrogen chloride or with pure aluminum chloride. The process was tested at 900, 950, and 1000C for 1-5 hr. It was found that the aluminum deposition rate in vapors from Al and AlCl₃ mixture was higher than that in vapors from Al and HCl, probably because of an increased content of chlorides in the medium owing to the absence of hydrogen. The weight gain increased with increasing exposure time and with increasing temperature of nickel specimens, and reached a maximum at 950C. With further temperature increase to 1000C, the weight gain decreased because of a decreased aluminum transfer to the nickel surface associated with a higher stability of aluminum chlorides. The diffusion layer formed in 1 or 5 hr deposition at 900C.

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UDC: 669.24:621.785.34.53

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ACC NR: AP6035959

was 50 or 100 μ thick, respectively, and consisted of the α -solid solution of aluminum in nickel with a respective lattice parameter of 3.526 and 3.546 Å. The diffusion layer formed in 3 hr at 950C deposition temperature and 1000C evaporation temperature was 195 μ thick and consisted of the β -phase (NiAl), Ni₃Al and the α -solid solution of aluminum in nickel. Oxidation tests for 25 hr in air at 1000, 1100 and 1200C showed that the oxidation rate of the diffusion layer is much (65—70% at 1200C) lower than that of uncoated nickel. Orig. art. has: 5 figures.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 001/ ATD PRESS: 5105

Card 2/2

ARZAMASOVA, Z. A.

"Specific Varieties of Azotobacters and Their Role in Increasing the Yield of Summer Wheat." Cand Biol Sci, Moscow Order of Lenin State U ineni M. V. Lomonosov. (VM, 15 Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

ARZAMASOVA, Z.A., kand.biologicheskikh nauk; GEL'BERGER, M.G., kand. biologicheskikh nauk; DERBENEVA-UKHOVA, V.P., prof.; ZAKHAROVA, N.F., nauchnyy sotrudnik; KIRPICHNIKOV, A.A., kand.tekhn.nauk.

Mechanized biotermic decontamination of refuse. Gig. i san.28
no.1:13-17 Ja'63. (MIRA 16:7)

1. Iz Akademii kommunal'nogo khozyaystva imeni K.D.Pamfilova.
(REFUSE AND REFUSE DISPOSAL)

Arzamastsev, A.P.

The analysis of some pharmaceutical preparations with ion-exchanger SDV-3. A. P. Arzamastsev (Moscow Pharm. Inst.). *Aptekarskoe Delo* 4, No. 5, 88-9 (1966). — The ion-exchange method was applied to the analysis of Ca salts of org. acids. The ion-exchanger used was SDV-3. Characteristics were: sp. gr. 1.1; capacity (to Na) 5.4-5.6%; grain size 2-3 mm.; S content 12.4%; H₂O content of sub-dry material 12.5%; absorption of H₂O 60% (by weight of sub-dry product); acid no. 240; chem. stability, colors, soln. NaOH; absorptive capacity for Ca ions 3.8-4.0 mg. of Ca per equivalent of the salt per g. of dry ionite or 1000 mg. of Ca per g. of the salt per g. of the ionite. Ionite is pretreated by soaking in H₂O for 4 hrs., placing in column, washing with 8% HCl, then with H₂O until washings are neutral to litmus. The analyzed soln. contg. 0.04-0.05 g. of salt in 10 ml. is passed at the rate of 2-3 drops/sec., followed by washing with 30 ml. H₂O until neutral to litmus. In the filtrate the free acid is titrated with 0.1N NaOH (phenolphthalein). Analysis of Ca gluconate, glycerophosphate, and lactate gave results very close to those obtained by standard methods.

A. Shadan

ARZAMASTSEV, A.P.

Second volume of the International Pharmacopoeia; brief summary.
Apt.delo 6 no.1:78-80 Ja-F '57. (MIRA 10:3)
(PHARMACOPOEIAS)

ARZAMASTSEV, A.P.

Colorimetry in the analysis of alkaloids. Apt.delo 6 no.4:73-81
Jl-Ag '57. (MIRA 10:9)

(COLORIMETRY) (ALKALOIDS)

ARZAMASTSEV, A.P.

Some aspects of the development of pharmaceutical practice in
Argentina. Apt.delo 6 no.6:75-77 N-D '57. (MIRA 10:12)
(ARGENTINA--PHARMACY)

ARZAMASTSEV, A.P.

Methods for analyzing some important groups of therapeutic substances according to the International Pharmacopoeia (Vols. 1 and 2).

Apt., delo 7 no.2:83-86 Mr-Ap '58.

(MIRA 11:4)

(DRUGS--ADULTERATION AND ANALYSIS)

ARZAMASTSEV, A.P.

The 1958 British Pharmacopoeia. Apt.de1o 7 no.3:83-86 My-Je'58
(MIRA 11:7)

(GREAT BRITAIN--PHARMACOPOEIAS)

ARZAMASTSEV, A.P.

~~SECRET~~ National Pharmacopoeia of Argentina, 1956; fourth edition.
Apt.delo 7 no.4:86-87 J1-Ag '58 (MIRA 11:8)
(ARGENTINA--PHARMACOPOEIAS)

ARZAMASTSEV, A.P.

Colorimetric determination of caffeine and 8-methylcaffeine
on the basis of alkaline hydrolysis. Apt.delo 7 no.5:72-78
S-0 '58 (MTRA 11:10)

1. Is kafedry farmatsevticheskoy khimii (zav. - prof. P.L.
Senov) Moskovskogo farmatsevticheskogo instituta Ministerstva
zdravookhraneniya RSFSR.
(CAFFEINE)

ARZAMASTSEV, A. P., Candidate Pharmaceut Sci (diss) -- "A study of the possibility of photoelectrocolorimetric determination of the methyl derivatives of xanthine". Moscow, 1959. 11 pp (First Moscow Order of Lenin Med Inst im I. M. Sechenov), 200 copies (KL, No 25, 1959, 143)

ARZAMASTSEV, A.P.

Colorimetric determination of 8-methyl caffeine. Apt.delo 8
no.2:68-72 Mr-Ap '59. (MIRA 12:5)

1. Iz kafedry farmatsevticheskoy khimii (zav. - prof. P.L.Senov)
Moskovskogo farmatsevticheskogo instituta.
(CAFFEINE) (COLORIMETRY)

ARZAMASTSEV, A.P.

Stabilized diazonium salts as reagents for the qualitative and quantitative determination of pharmaceutical preparations. Apt. delo 8 no.3:60-66 My-Je '59. (MIRA 12:8)

1. Iz kafedry farmatsevticheskoy khimii (zav. - prof.P.L.Senov) farmatsevticheskogo fakul'teta I Moskovskogo ordena Lenina meditsinskogo instituta.

(DIAZONIUM COMPOUNDS)

ARZAMASTSEV, A.P.

TEN SHU-KHAO [T'eng Shu-hao]; DZHOU TON-GUI [Dzhoy T'on-kui]; ARZAMASTSEV,
A.P., kand.farmatsev.nauk [translator]

Rapid polarographic method of studying Artemisia santonin. Apt.delo
8 no.6:64-67 N-D '59. (MIRA 13:4)

1. Iz laboratorii analiticheskoy khimii otдела farmatsevticheskoy
khimii Instituta meditsinskikh preparatov (direktor Khu Dzhengkay)
Akademii meditsinskikh nauk Kitayskoy Narodnoy Respubliki, Pekin.
(POLAROGRAPHY) (WORMWOOD)

CHUYEV, M.N., student V kursa; ARZAMASTSEV, A.P., assistant

Colorimetric determination of quinine hydrochloride. Apt.delo
8 no.4:54-55 J1-Ag '59. (MIRA 12:10)

1. Nauchnyy studencheskiy krushok kafedry farmatsevticheskoy
khimii (zav. - prof.P.L.Senov) farmatsevticheskogo fakul'teta
I Moskovskogo ordena Lenina meditsinskogo instituta imeni
I.M.Sechenova.

(QUININI)

ARZAMASTSEV, A.P.

Study of the possibility of photoelectrocolorimetric determination
of the methyl derivatives of xanthine. Med.prom. 13 no.11:63-64
N '59. (MIRA 13:3)

(XANTHINE)

(COLORIMETRY)

ARZAMASTSEV, A.P., kand.farm.nauk

"Pharmacopoea Internationalis"; supplement. World Health
Organization. Reviewed by A.P. Arzamastsev. Apt.delo 9
no.2:91-93 Mr-Ap '60. (MIRA 13:6)
(PHARMACOPONIA)

SENOV, P.L.; ARZAMASTSEV, A.P.

"British Pharmaceutical Codex." Reviewed by P.L.Senov, A.P.
Arzamastsev. Apt. delo 9 no.3:85-86 My-Je '60. (MIRA 14:3)
(GREAT BRITAIN—PHARMACY)

ARZAMASTSEV, A.P.

Study of the possibility of photoelectrocolorimetric determination
of methyl derivatives of xanthine. Apt. delo 9 no. 5:89 S-0 '60.
(MIRA 13:10)

(XANTHINE) (COLORIMETRY)

ARZAMASTSEV, A.P.

18th General Assembly of the International Pharmaceutical Federation
and the 20th Congress of Pharmaceutical Sciences. Apt. delo 10
no. 2:66-67 Mr-Ap '61. (MIRA 14:4)
(PHARMACISTS--CONGRESSES)

ARZAMASTSEV, A.P.; YAKUTOVICH, V.G.

"Pharmaceutical chemistry" by M.M.Turkevich. Reviewed by A.P.Arzamastsev
and V.G.Iakutovich. Apt. delo 11 no.2:86-87 Mr-Ap '62. (MIRA 15:5)
(CHEMISTRY, MEDICAL AND PHARMACEUTICAL)

ARZAMASTSEV, D.A., kand. tekhn. nauk, dotsent

Comparison of capital investment variants with operating expenditures
varying within the year. Izv. vys. ucheb. zav.; energ. 7 no.8:99-103
Ag '64. (MIRA 17:12)

1. Ural'skiy politekhnicheskiy institut imeni S.M.Kirova. Predstavlena
kafedroy elektricheskikh stantsiy, setey i sistem.

ARZAMASTSEV, D. A.

USSR/Engineering, Welding, Equipment

Oct 51

"Determination of Initial Values in Calculation
of Regulator for Welding With Three-Phase Arc,"
D. A. Arzamastsev, Engr, Ural Polytech Inst
imeni S. M. Kirov

"Avtogen Delo" No 10, pp 11-13

Describes regulator, designed by Prof N. S.
Siunov, and develops formulas for calcg volt-
age drop in windings of choke coils. These
values, together with min current and smallest
practically possible air gaps, serve as initial
data for designing 2 chokes of regulator.

202T40

ARZAMASTSEV, D.A.

AKHUN, A.I.; KAGANOV, N.L., kandidat tekhnicheskikh nauk, retsenzent;
SERGEYEV, I.P., inzhener, retsenzent; GALAKTIONOV, A.T., kandidat
tekhnicheskikh nauk, redaktor; ARZAMASTSEV, D.A., kandidat tekhnicheskikh nauk, redaktor; STEPANOV, V.G., kandidat tekhnicheskikh nauk, redaktor.

SMOS

[Contact electric-welding machines] Kontaktnye elektrosvarochnye mashiny.
Sverdlovsk, Gos. nauchno-tekhn. izd-vo mashinostroit.i sudostroit.
lit-ry [Uralo-Sibirskoe otd-nie], 1953. 310 p. (MLRA 7:6)

1. Kafedra svarki MVTU imeni N.M.Baumana (for Kaganov, Sergeyev). 2.
Uralmashsovod (for Stepanov).
(Electric welding)

1. SYUNOV, N.S.; ARZAMASTSEV, D.A.
2. USSR (600)
4. Electric Welding
7. Contactless regulators for welding with a three-phase arc, Prof. N.S. Syunov, D.A. Arzamastsev, Avtog.delo 24 no. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

ARZAMASTSEV, D. A.

USSR/ Engineering - Welding apparatus

Card 1/1 Pub. 11 - 3/8

Authors : Siunov, N. S., Arzamastsev, D. A.

Title : Principles of designing of control apparatus for manual welding with a three-phase arc

Periodical : Avtom. svar. 8/1, 25-58, Jan-Feb 1955

Abstract : The design, assembly and operation of the ZRST control apparatus for manual welding of metal with a three-phase arc, are described. Formulas are given for calculating phase control units and impedance coils. Eight USSR references (1948-1953). Illustrations; diagrams; drawings.

Institution : The Ural S. M. Kirov Polytechnical Institute

Submitted : July 25, 1954

ARZAMASTSEV, D.A., kand. tekhn. nauk, dots.

Determining diameters of wire for overhead lines which are most
advantageous from the economical point of view. Trudy Ural politekh.
inst. no.90:112-118 '58. (MIRA 13:2)
(Electric lines, Overhead)

ARZAMASTSEV, D.A., kand. tekhn. nauk, dots.

Economic comparisons of various versions of an electric net.
Trudy Ural. politekh. inst. no.90:119-132 '58. (MIRA 13:2)
(Electric networks)

ARZAMASTSEV, D.A., dotsent, kand. tekhn. nauk; KRICHENOVA, I.A., dotsent,
—kand. tekhn. nauk; RUDNITSKIY, M.P., assistant

Some problems in studying asynchronous connections and resynchroni-
zation regimes in power systems. Sbor. nauch. trud. Ural. politekh.
inst. no.122:216-225 '61. (MIRA 17:12)

ARZAMASTSEV, D.A., kand.tekhn.nauk, dotsnet

Determination of the cost of power losses in long-distance a.c.
power transmission lines. Izv. vys. ucheb. zav.; energ. 5
no.7:119-121 J1 '62. (MIRA 15:7)

1. Ural'skiy politekhnicheskiy institut imeni S.M.Kirova.
Predstavlena kafedroy elektricheskikh stantsiy, setey i sistem.
(Electric power distribution) (Electric lines--Overhead)

ARZAMASTSEV, D.A., kand.tekhn.nauk (Sverdlovsk)

Evaluation of expenditures on electric power in the design of the
electrical sections of industrial enterprises. Elektrichestvo
no.11:88-90 N '62. (MIRA 15:11)

(Electric power distribution--Accounting)

ARZAMASTSEV, D.A., kand.tekhn.nauk (Sverdlovsk)

Forms of the conditions of efficient operation of electric power
systems with thermal power plants. Elektrichestvo no.4:5-9 Ap
'64. (MIRA 17:4)

ARZAMASTSEV, Dmitry Aleksandrovich, kand.tekhn.nauk, doc'sent; RUDNITSKIY,
Mstislav Petrovich, assistant

Use of elliptical functions in the analysis of the dynamic
stability of synchronous machines. Izv.vys.ucheb.zav.; elektromekh.
8 no.3:291-299 '65. (MIRA 18:5)

1. Zaveduyushchiy kafedroy elektricheskikh stantsiy, setey i
sistem Ural'skogo politekhnicheskogo instituta (for Arzamastsev).
2. Kafedra elektricheskikh stantsiy, setey i sistem Ural'skogo
politekhnicheskogo instituta (for Rudnitskiy).

ARHAMASTSEV, D.A., kand. tekhn. nauk; RUBNITSKIY, M.P., inzh.; SKLYAROV,
Yu.S., inzh.

Selection of optimal wire sizes in power network design. Elektri-
chestvo no.8:44-48 Ag '65. (MIRA 18:9)

1. Ural'skiy politekhnicheskii institut imeni Kirova.

L 2576-66

ACCESSION NR: AP5019291

UR/0143/65/000/007/0007/0012

621.316.11:518.5

AUTHOR: Arzamastsev, D. A. (Candidate of technical sciences, Docent);
Bartolomey, P. I. (Engineer)

33
32
B

TITLE: Setting up and solving network-mesh equations on digital computers

SOURCE: IVUZ. Energetika, no. 7, 1965, 7-12

TOPIC TAGS: nonlinear differential equation, digital computer

ABSTRACT: Techniques are developed for simplifying the process of setting up such differential equations which could be conveniently solved on "Ural-1" and "Ural-2" computers. Mesh equations separately representing real and imaginary voltage components can be solved by a method of group iteration, i.e., by substituting a set of linear differential equations for the initial set of nonlinear equations. A 3-mesh network with and without node-connected loads is considered. The initial closed-mesh network is transformed into an open "tree"

Card 1/2

L 2576-66

ACCESSION NR: AP5019291

network which is described by a square nonsingular D-submatrix. By combining it with the node-current submatrices, a unit submatrix and a 0-submatrix, a resulting transformation M-matrix is obtained. The latter matrix, an impedance diagonal matrix Z and the mesh matrix Γ , serve for setting up the final mesh equations. The method permitted finding the power-flow distribution in a 12-mesh network, on a "Ural-2" computer, in 6 min. Orig. art. has: 4 figures and 24 formulas.

ASSOCIATION: Ural'skiy politekhnicheskiy institut im. S. M. Kirov
(Ural Polytechnic Institute)

SUBMITTED: 27Jun64

ENCL: 00

SUB CODE: MA, DP

NO REF SOV: 006

OTHER: 001

Cord 2/2

RECEIVED AND PROPERTY NO.																																																																													
ARZAMASTSEV, I. G. CA 7 The strength of ingot molds in the A. K. Serov works. I. G. Arzamastsev, I. M. Boryakov and N. I. Beztusov. <i>Tr. M. 9</i>, No. 9, 19-24 (1940); <i>Chem. Zentr.</i> 1941, II, 945. Strength tests on cast iron molds showed that increased Mn content in the molds gave 1.5-2-fold greater durability. The following compn. is suggested: C 3.7-3.8, Mn 1.4-1.6, Si 1.4-1.7, with P about 0.15 and S 0.03%. Use of Mn-bearing pig Fe or steepleisen is recommended for making such molds. To make the cast Fe with finely divided graphite, heating to 1200-1250° is proposed, with a pouring temp. of 1150-1200°. A. B.																																																																													
ASB SCA METALLURGICAL LITERATURE CLASSIFICATION																																																																													
<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>																										1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26																										
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AZAMSTSSV. I. G.		PROCESSING AND PROPERTIES INDEX	
CA		9	
Cr-Mo-Al steel from basic open-hearth furnaces. 1. G. Arzamastov and V. I. Palant. <i>Stal</i> (N. S. I. I. No. 7-8, 15-17(1941)). The steel 38 KhMVuA, formerly produced by the acid process, contains C 0.30 0.42, Mn 0.35 0.60, Si 0.17 0.37, P < 0.015, S < 0.010, Cr 1.45 1.65, Mo 0.35 0.60 and Ni < 0.1%. No difficulties were experienced in the basic process. Care must be taken to avoid the loss of Al. The addition of Al to incompletely deoxidized steel causes a considerable loss of Al; the Al_2O_3 formed does not melt readily, the melt thickens and part of the oxidation products become entrained in the melt. Heating the melt helps to eliminate part of the impurities but causes porosity. The main reason for internal tears is too rapid cooling; this can be avoided by soaking the ingots at not less than 1000°. There was also observed some liquation inside the ingot, apparently caused by gas saturation. Completely sound ingots were obtained by properly regulating the teeming and the temp. Al. Hosh			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION			
13000 57002124	130003 410 000 001	011111101	13000 530107
13000 57002124	130003 410 000 001	011111101	13000 530107

ARZAMATSEV, I. G. Ca										PROCESSES AND PROPERTIES INDEX									
Production of flakeless structural high-alloyed steel A. A. Rastorguev and I. G. Arzamatssev. <i>Stal</i> 3, No 10, 47-54 (1943). - It was observed in a large no. of instances that flakes developed in steel even though the cooling period was long. The flakes developed after a considerable time and therefore passed the control testing. This condition occurred quite frequently in varieties of steels made in open hearths which formerly were made in coke furnaces. The purpose of this investigation was to work out a method of cooling and annealing after rolling which would insure a flakeless steel and at the same time shorten the process. Both pearlitic and martensitic steels were investigated. To attain the two mentioned aims steels having a pearlitic transformation should be cooled slowly to somewhat below A_1. Steels having martensitic transformation should be treated similarly to below A_1. In either case, immediately after the cooling, the steel should be annealed. For martensitic steel cooled in soaking pits or gravel beds and then annealed in furnaces, a hrs. may elapse between the two operations. In plants having furnaces for direct treating of steel, the latter is placed in such furnaces, kept at a temp. below A_1 or A_1 and kept there long enough for the steel to go through the resp. point. The steel is then transferred into a chamber kept at the annealing temp., kept therein for the requisite time and then discharged into the air.										9									
MI. Hosh										9									
Evaluation B-58884										9									
ASME 11.4 DETAILING LITERATURE CLASSIFICATION										9									
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ARZAMASTSEV, I.G.
SADOVSKIY, V.D., professor, doktor tekhnicheskikh nauk; MALYSHEV, K.A.,
kandidat tekhnicheskikh nauk; POLYAKOVA, A.M., inzhener; AVDEYEVA, V.D.,
inzhener; ARZAMASTSEV, I.G., inzhener; ISUPOV, V.F., inzhener

Story fracture in structural alloyed steel. Stal' 15 no.6545-548
Ja '55. (MLRA 8:8)

1. Institut fiziki metallov Ural'skogo filiala Akademii nauk SSSR.
2. Metallurgicheskiy zavod imeni Serova.
(Steel, Structural--Testing)

ARZAMASTSEV, K. D.

Radio in Education

Apiculture information on the radio, Pchelovodstvo, No. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, May 1953² Uncl.

1. ARZAMASTSEV, P.
2. USSR (600)
4. Moving-Picture Projection
7. How I shall utilize laborsaving suggestions which appeared in the periodical "Kinomekhanik." Kinomekhanik, No. 3, 1953.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

ARZAMASTSEV, P.

Most important tasks in preparing buildings and equipment for state grain procurement and purchases in 1955. Muk.-elev.prom.21 no.1:1-3 Ja '55. (MIRA 8:5)

1. Zamestitel' ministra zagotovok Soyuzs SSR.
(Grain trade)

ARZAMASTSEV, P.

For exemplary technical preparation for the procurement of the
new grain crop. Muk.-elev.prom.22 no.2:3-5 P '56. (MIRA 9:6)

1.Zamestitel' ministra zagotovok.
(Grain trade)

ARZAMASTSEV, P.S.

Copy milling machines following designs. Stan. 1 instr. 28 no.5:
3-6 My '57. (Milling machines) (MLRA 10:6)

PETROV, I.I., doktor tekhn.nauk, prof.; SHCHUKIN, A.I., kand.tekhn.nauk,
dots.; ZUSMAN, V.G., kand.tekhn.nauk, dots., ARZAMASTSEV, P.S.,
kand.tekhn.nauk, dots.; PANTYUSHEV, G.S., kand.tekhn.nauk;
NEVRAYEV, V.Yu., kand.tekhn.nauk; POPOV, G.A., dots.

"Principles of electric driving" by A.T. Golovan. Reviewed by
I.I. Petrov and others. Elektrichestvo no.8:93-95 Ag '60.
(MIRA 13:8)

(Electric driving)
(Golovan, A.T.)

ARZAMASTSEV, V.F., inzh.; KOZHEVNIKOV, M.N., inzh.

Mechanization of plowshare hardening. Mekh. i avtom.proizv. 19
no.2:19 F '65. (MIRA 18:3)

ARZAMASTSEV, Ye.I.; UMRIKHIN, P.M.

Melting process in basic open-hearth furnaces with use of
low-grade manganese ore. Izv. vys. ucheb. zav.; chern.
met. 6 no.2:58-67 '63. (MIRA 46:3)

1. Ural'skiy politekhnicheskii institut.
(Open-hearth process)
(Manganese ores)

ARZAMASTSEV, Ye.I.; UMRIKHIN, P.V.

Role of manganese oxides in the slag formation process in a basic open-hearth furnace. Izv. vys. ucheb. zav.; chern. met. 6 no.6: 35-42 '63. (MIRA 16:8)

1. Ural'skiy politekhnicheskiy institut.
(Open-hearth furnaces) (Slag) (Manganese oxide)

VOLKOV, S.S.; UMRIKHIN, P.V.; ARZAMASTSEV, Ye.I.; LUPEYKO, V.

Using manganese limestone in oxygen blowing. Izv. vys. ucheb.
zav.; chern. met. 8 no.10:52-58 '65. (MIRA 18:9)

1. Ural'skiy politekhnicheskiy institut.

L 59555-65

ENT (m) / RDP (m) / RDP (m)

Metallurgiya. Abs. 30255

AMT (m) / RDP (m)

CITED SOURCE: Uch. zap. Tsentr. n - l. (Uch. zap. Tsentr. n - l.)
44-45

3(5)

SOV/26-59-5-40/47

AUTHOR: Arzamastseva, L.V. (Moscow)

TITLE: Korean Geographers About Their Own Country

PERIODICAL: Priroda, 1959, Nr 5, pp 120 - 121 (USSR)

ABSTRACT: The author reviews the book by Pak Tkhe Khun and Ten Khek entitled "Ochërk geografii Korei" (An Outline of Korean Geography), Pkhen'yan, 1957, 130 pp.

Card 1/1

ARZAMASTSEVA, L.V.

Important work on the soils of Yugoslavia. Izv. AN SSSR. Ser.
geog. no.3:119-121 My-Je '65. (MIRA 18:6)

ARZAMASTSEVA, L.V.

Pond fish culture in Czechoslovakia. Priroda 53 no.6:85-88 '64.
(MIRA 17:6)

1. Institut'geografii AN SSSR, Moskva.

ARZAMOV, Andrey Ivanovich; KUZNETSOV, Ivan Fedorovich, inzh.-
issledovatel'; MAKAROVA, E.A., red.

[Trade-union work in a communist labor workshop] Profsoiuz-
naya rabota v tseke kommunisticheskogo truda. Moskva, Prof-
izdat, 1965. 94 p. (MIRA 18:8)

1. Sekretar' Vostochno-Kazakhstanskogo oblastnogo komiteta
profsoyuza rabochikh metallurgicheskoy promyshlennosti (for
Arzamov). 2. Ust'-Kamenoporskiy svintsovo-tsinkovyy kombinat
imeni V.I.Lenina (for Kuznetsov).

ARZANTSHEV, V. (g.Kuybyshev)

ARS-2 a.c. radio transmitter-receiver. Pozh.delo 6
no.8:23-24 Ag '60. (MIRA 13:8)
(Radio, Shortwave--Transmitters and transmission)
(Radio, Shortwave--Receivers and reception)

ARZENSEK, A., inz.

Building of a plant for the purification of waste water at the
Sostanj Leather Factory. Nova proizv 13 no.2:158-164 '62.

ARZUMAN, I.

Experience in building and operating Sheet Rolling Mill 2400. p. 200.
(NOVA PROIZVODNJA, Vol. 5, no. 3/4, Sept. 1954. Ljubljana, Yugoslavia)

SO: Monthly List of East European Accessions, (SEAL), LC, Vol. 4, No. 4,
Apr 1955, Uncl.

MIKHALEV, G.P.; ARZHAKOV, N.D.

Some geological characteristics of Lower Jurassic diamond-bearing sediments
in the "Mir" kimberlite pipe region. Nauch.sob. IAFAN SSSR no.7:113-119
'62. (MIRA 16:3)

(Yakutia--Kimberlite)

SOV/20-120-5-37/67

AUTHORS: Igonin, L. A., Ovchinnikov, Yu. V., Arzhakov, S. A.

TITLE: The Influence of High Pressures on the Autohesion of High Polymers (Vliyanie vysokikh davleniy na samoslipaniye (autogeziyu) vysokopolimerov)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 120, Nr 5, pp.1062-1064 (USSR)

ABSTRACT: This is a study of the influence of temperature and of pressure upon the autohesion of some powdery thermoplastic substances. The conditions of the formation of a transparent sample when powdery substances are pressed in a cylindrical heated die were investigated. The process of pressing is described. At temperatures not exceeding 130° only a partial coalescence of the grains of the polymer takes place. Only at higher temperatures the strength of the samples reaches the cohesion strength of the material. When non-transparent samples are obtained by a pressing of the polymer powder no autohesion of the grains occurred. The autohesion of polyvinyl chloride begins at temperatures which are 5 - 10° above the vitrification temperature. The limit between trans-

Card 1/3

SOV/20-120-5-37/67

The Influence of High Pressures on the Autohesion of High Polymers

parent and non-transparent samples is in the interval of 100-150 kg/cm². At a constant temperature and at a simultaneous pressure rise at first non-transparent samples are produced. This range corresponds to the growth of the total contact surface of the grains with increasing pressure. This is the necessary condition for the occurrence of autohesion. At a further increase of pressure transparent samples are produced, that is to say, the boundaries between the grains disappear because of the complete or partial coalescence. A complete coalescence occurs above 130°. The dependence of the vitrification temperature of polyvinyl chloride upon the pressure as shown in this paper was also observed in a few other polymers. A diagram illustrates the respective curves for polyvinyl chloride, polystyrene and polymethyl methacrylate. There are 4 figures and 5 references, 4 of which are Soviet.

PRESENTED:

February 25, 1958, by V. A. Kargin, Member, Academy of Sciences, USSR

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